



## NanoBeam™

High-Performance  
airMAX™ Bridge  
Models:  
NBE-M2, NBE-M5

## QUICK START GUIDE

### Introduction

Thank you for purchasing the Ubiquiti Networks™ NanoBeam™. This Quick Start Guide is designed to guide you through the installation of the NanoBeam and show you how to access the airOS™ Configuration Interface. This Quick Start Guide also includes the warranty terms and is for use with the NanoBeamM2, model NBE-M2, and the NanoBeamM5, model NBE-M5.

If you want to add a radome to enclose the Dish Reflector, Ubiquiti Networks offers the NanoBeam Radome, 400 mm, model NBE-RAD-400 as an optional accessory. Product details are available on our website at <http://www.ubnt.com>

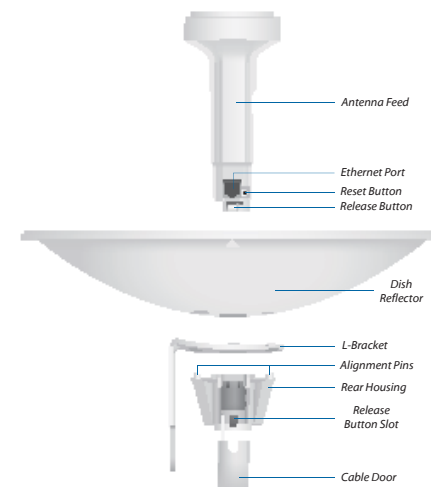
### Package Contents



TERMS OF USE: Ubiquiti radio devices must be professionally installed. Shielded Ethernet cable and earth grounding must be used as conditions of product warranty. It is the customer's responsibility to follow local country regulations, including operation within legal frequency channels.

### Hardware Overview

#### Bottom View



### LEDs



**Signal** In airOS, you can modify the wireless signal strength threshold values for each LED on the *Advanced* tab under *Signal LED Thresholds*. The default values are shown below:

- LED will light green when the wireless signal strength is above -65 dBm.
- LED will light green when the wireless signal strength is above -73 dBm.
- LED will light amber when the wireless signal strength is above -80 dBm.
- LED will light red when the wireless signal strength is above -94 dBm.

**Ethernet** The Ethernet LED will light steady green when an active Ethernet connection is made and flash when there is activity.

**Power** The Power LED will light green when the device is connected to a power source.

**Antenna Feed** The NanoBeamM2 *Antenna Feed* is shown; however, the NanoBeamM5 *Antenna Feed* has the same layout for the *Ethernet Port*, *Reset* button, and *Release* button.

**Reset Button** To reset to factory defaults, press and hold the *Reset* button for more than 10 seconds while the NanoBeam is already powered on.

**Release Button** After you assemble the NanoBeam, check the *Release* button; it should be fully engaged in the *Release Button Slot* of the *Rear Housing*. This ensures that the *Antenna Feed* is locked into place. If you need to remove the *Antenna Feed*, you must depress the *Release* button first.

### Installation Requirements

- 13 mm or 1/2" wrench
- Shielded Category 5 (or above) cabling should be used for all wired Ethernet connections and should be grounded through the AC ground of the PoE.

We recommend that you protect your networks from the most brutal environments and devastating ESD attacks with industrial-grade shielded Ethernet cable from Ubiquiti Networks. For more details, visit [www.ubnt.com/toughcable](http://www.ubnt.com/toughcable)

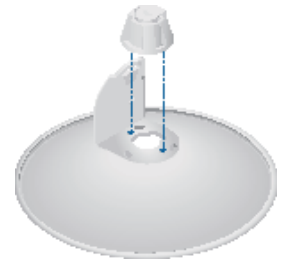
### Installation

The installation instructions show the NanoBeamM2; however, the same instructions apply to the NanoBeamM5.

- Align and insert the tabs of the *Dish Bracket* into the slots of the *Dish Reflector*. Rotate the *Dish Bracket* counter-clockwise until the tabs lock into place.



- Line up the *Alignment Pins* of the *Rear Housing* with the alignment holes of the *Dish Bracket*. Insert the pins and push until they lock into place.



- Push in the sides of the *Cable Door* and detach it from the *Rear Housing*.



- Attach the *Antenna Feed*:
  - Insert the *Antenna Feed* into the *Rear Housing*, and push until it locks into place with a click.
  - Lightly pull the *Antenna Feed* to ensure that it is locked into place and the *Release* button is fully engaged.



Bottom View

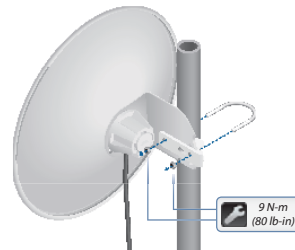
- Connect the Ethernet cable:
  - Connect an Ethernet cable to the *Ethernet Port* of the *Antenna Feed*.
  - Re-attach the *Cable Door* to the *Rear Housing*.



- Slide the *Pole Clamp* onto the *Dish Bracket*.



- Insert the *M8 U-Bolt* into the *Pole Clamp* and *Dish Bracket*. Secure each end of the *M8 U-Bolt* with a *M8 Flange Nut*.



**Note:** The mounting assembly can accommodate a  $\varnothing$  1.25" - 2.2" pole.

- Optional: If you have the *NanoBeam Radome* (optional accessory), then align the arrows on the bottoms of the *Radome* and *Dish Reflector* so the *Drain Holes* on the *Radome* point downward. Snap the *Radome* onto the *Dish Reflector*.



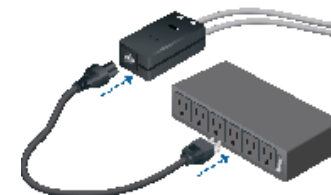
- Connect the other end of the Ethernet cable from the NanoBeam to the Ethernet port labeled **POE** on the *PoE Adapter*.



- Connect an Ethernet cable from your LAN or computer to the Ethernet port labeled **LAN** on the *PoE Adapter*.



- Connect the *Power Cord* to the power port on the *PoE Adapter*. Connect the other end of the *Power Cord* to a power outlet.



## Specifications

NanoBeam	
Dimensions <p>NanoBeamM2 NanoBeamM5</p>	420 x 420 x 289 mm (Mount Included) <p>420 x 420 x 275 mm (Mount Included)</p>
Weight <p>NanoBeamM2 NanoBeamM5</p>	1.795 kg (Mount Included) <p>1.753 kg (Mount Included)</p>
Operating Frequency <p>NanoBeamM2 NanoBeamM5</p>	2405 - 2475 MHz <p>USA: 5180 - 5240, 5190 - 5230, 5475 - 5850, 5755 - 5795 MHz</p>
Gain <p>NanoBeamM2 NanoBeamM5</p>	18 dBi <p>25 dBi</p>
Networking Interface <p>NanoBeamM2 NanoBeamM5</p>	(1) 10/100 Ethernet Port <p>(1) 10/100/1000 Ethernet Port</p>
Enclosure	Outdoor UV Stabilized Plastic
Max. Power Consumption	5.5 W
Power Supply	24V, 0.5A PoE Supply Included
Power Method	Passive PoE (Pairs 4, 5+; 7,8 Return)
Wind Survivability	125 mph
Wind Loading	49 lbf @ 100 mph
Certifications	CE, FCC, IC
Mounting	Pole Mounting Kit Included
Operating Temperature	-30 to 75° C
Operating Humidity	5 to 95% Condensing
Shock and Vibrations	ETSI300-019-1.4

the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

This product is restricted to indoor use due to its operation in the 5.15 to 5.25 GHz frequency range.

FCC requires this product to be used indoors for the frequency range 5.15 to 5.25GHz to reduce the potential for harmful interferenceto co-channel Mobile Satellite systems.

5.15 to 5.25 GHz frequency range is indoor use only.

For MPE and antenna usage details, please visit our website at [www.ubnt.com/products](http://www.ubnt.com/products)

### Industry Canada

This Class B digital apparatus complies with Canadian ICES-003.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- This device may not cause interference, and
- This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 Canada.

Pour réduire le risque d'interférence aux autres utilisateurs, le type d'antenne et son gain doivent être choisis de façon que la puissance isotrope rayonnée équivalente (PIRE) ne dépasse pas ce qui est nécessaire pour une communication réussie.

Cet appareil est conforme à la norme RSS Industrie Canada exempts de licence norme(s). Son fonctionnement est soumis aux deux conditions suivantes:

- Cet appareil ne peut pas provoquer d'interférences et
  - Cet appareil doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement du dispositif.
- RF Exposure Warning**
- The antennas used for this transmitter must be installed to provide a separation distance of at least 113 cm from all persons and must not be located or operating in conjunction with any other antenna or transmitter.
- Les antennes utilisées pour ce transmetteur doivent être installé en considérant une distance de séparation de toute personnes d'au moins 113 cm et ne doivent pas être localisé ou utilisé en conflit avec tout autre antenne ou transmetteur.

### RoHS/WEEE Compliance Statement



#### English

European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

### Deutsch

Die Europäische Richtlinie 2002/96/EC verlangt, dass technische Ausrüstung, die direkt am Gerät und/oder an der Verpackung mit diesem Symbol versehen ist, nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist darauf hin, dass das Produkt vom regulärem Haushaltsmüll getrennt entsorgt werden sollte. Es liegt in Ihrer Verantwortung, dieses Gerät und andere elektrische und elektronische Geräte über die dafür zuständigen und von der Regierung oder örtlichen Behörden dazu bestimmten Sammelstellen zu entsorgen. Ordnungsgemäßes Entsorgen und Recyceln trägt dazu bei, potentielle negative Folgen für Umwelt und die menschliche Gesundheit zu vermeiden. Wenn Sie weitere Informationen zur Entsorgung Ihrer Altgeräte benötigen, wenden Sie sich bitte an die örtlichen Behörden oder städtisches Entsorgungsdienste oder an den Händler, bei dem Sie das Produkt erworben haben.

### Safety Notices

- Read, follow, and keep these instructions.
- Heed all warnings.
- Only use attachments/accessories specified by the manufacturer.

**⚠ WARNING:** Do not use this product in location that can be submerged by water.

**⚠ WARNING:** Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

### Electrical Safety Information

- Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer’s label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
- There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
- This equipment is provided with a detachable power cord which has an integral safety ground wire intended for connection to a grounded safety outlet.
  - Do not substitute the power cord with one that is not the provided approved type. Never use an adapter plug to connect to a 2-wire outlet as this will defeat the continuity of the grounding wire.
  - The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.
  - Contact a qualified electrician or the manufacturer if there are questions about the installation prior to connecting the equipment.
  - Protective earthing is provided by Listed AC adapter. Building installation shall provide appropriate short-circuit backup protection.
  - Protective bonding must be installed in accordance with local national wiring rules and regulations.

### Limited Warranty

UBIQUITI NETWORKS, Inc (“UBIQUITI NETWORKS”) warrants that the product(s) furnished hereunder (the “Product(s)”) shall be free from defects in material and workmanship for a period of one (1) year from the date of shipment by UBIQUITI NETWORKS under normal use and operation. UBIQUITI NETWORKS’ sole and exclusive obligation and liability under the foregoing warranty shall be for UBIQUITI NETWORKS, at its discretion, to repair or replace any Product that fails to conform to the above warranty during the above warranty period. The expense of removal and reinstallation of any Product is not included in this warranty. The warranty period of any repaired or replaced Product shall not extend beyond its original term.

### Warranty Conditions

The above warranty does not apply if the Product:

- (I) has been modified and/or altered, or an addition made thereto, except by Ubiquiti Networks, or Ubiquiti Networks’ authorized representatives, or as approved by Ubiquiti Networks in writing;
- (II) has been painted, rebranded or physically modified in any way;
- (III) has been damaged due to errors or defects in cabling;
- (IV) has been subjected to misuse, abuse, negligence, abnormal physical, electromagnetic or electrical stress, including lightning strikes, or accident;
- (V) has been damaged or impaired as a result of using third party firmware; or
- (VI) has no original Ubiquiti MAC label, or is missing any other original Ubiquiti label(s).

In addition, the above warranty shall apply only if: the product has been properly installed and used at all times in accordance, and in all material respects, with the applicable Product documentation; shielded Ethernet cabling is used, and for indoor installations, indoor cabling requirements are followed.

### Returns

No Products will be accepted for replacement or repair without obtaining a Return Materials Authorization (RMA) number from UBIQUITI NETWORKS during the warranty period, and the Products being received at UBIQUITI NETWORKS’ facility freight prepaid in accordance with the RMA process of UBIQUITI NETWORKS. Products returned without an RMA number will not be processed and will be returned freight collect or subject to disposal. Information on the RMA process and obtaining an RMA number can be found at: [www.ubnt.com/support/warranty](http://www.ubnt.com/support/warranty).

### Disclaimer

### Declaration of Conformity

Česky [Czech]	UBIQUITI NETWORKS tímto prohla uje, e tento UBIQUITI NETWORKS device, je ve shod se základními po adavky a dal i mi p íslu n mi ustanoveními sm míce 1999/5/ES.
Dansk [Danish]	Undertegnede UBIQUITI NETWORKS erklærer herved, at følgende udstyr UBIQUITI NETWORKS device, overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Nederlands [Dutch]	Hierbij verklaart UBIQUITI NETWORKS dat het toestel UBIQUITI NETWORKS device, in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG. Bij deze verklaart UBIQUITI NETWORKS dat deze UBIQUITI NETWORKS device, voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
English	Hereby, UBIQUITI NETWORKS, declares that this UBIQUITI NETWORKS device, is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Eesti [Estonian]	Käesolevaga kinnitab UBIQUITI NETWORKS seadme UBIQUITI NETWORKS device, vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiiviiv tulevatelate teistele asjakohastele sätetele.
Suomi [Finnish]	UBIQUITI NETWORKS vakuuttaa täten että UBIQUITI NETWORKS device, tyypinpen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Français [French]	Par la présente UBIQUITI NETWORKS déclare que l'appareil UBIQUITI NETWORKS, device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Deutsch [German]	Hiermit erklárt UBIQUITI NETWORKS, dass sich diese UBIQUITI NETWORKS device, in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet. (BMW)
Ελληνική [Greek]	ΜΕΤΗΝ ΠΑΡΟΥΣΑ UBIQUITI NETWORKS ΔΗΛΩΝΕΙ ΟΤΙ UBIQUITI NETWORKS device, ΕΥΜΜΟΡΦΟΜΕΤΑΙ ΠΡΟΣ ΤΗ ΟΥΣΙΩΔΕΙ ΑΡΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΑΛΙΕΙΕ ΣΧΕΤΙΚΕΙ ΔΙΑΤΑΞΕΙΣ ΤΗ ΟΔΗΓΙΑΣ 1995/5/ΕΚ.
Magyar [Hungarian]	Alulírott, UBIQUITI NETWORKS nyilatkozom, hogy a UBIQUITI NETWORKS device, megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Íslenska [Icelandic]	Hér me l sír UBIQUITI NETWORKS yfir ví a UBIQUITI NETWORKS device, er í samræmi við grunnkröfur og a rar kröfur, sem ger ar eru í tilskipun 1999/5/EC.

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EXCEPT TO THE EXTENT PROHIBITED BY LOCAL LAW, IN NO EVENT WILL UBIQUITI OR ITS SUBSIDIARIES, AFFILIATES OR SUPPLIERS BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES (INCLUDING LOST PROFIT, LOST DATA, OR DOWNTIME COSTS), ARISING OUT OF THE USE, INABILITY TO USE, OR THE RESULTS OF USE OF THE PRODUCT, WHETHER BASED IN WARRANTY, CONTRACT, TORT OR OTHER LEGAL THEORY, AND WHETHER OR NOT ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

### Note

Some countries, states and provinces do not allow exclusions of implied warranties or conditions, so the above exclusion may not apply to you. You may have other rights that vary from country to country, state to state, or province to province. Some countries, states and provinces do not allow the exclusion or limitation of liability for incidental or consequential damages, so the above limitation may not apply to you. EXCEPT TO THE EXTENT ALLOWED BY LOCAL LAW, THESE WARRANTY TERMS DO NOT EXCLUDE, RESTRICT OR MODIFY, AND ARE IN ADDITION TO, THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE LICENSE OF ANY SOFTWARE (EMBEDDED IN THE PRODUCT) TO YOU. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to any transactions regarding the sale of the Products.

### Compliance

### FCC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which



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### Online Resources

Support [support.ubnt.com](http://support.ubnt.com)

Wiki Page [wiki.ubnt.com](http://wiki.ubnt.com)

Support Forum [forum.ubnt.com](http://forum.ubnt.com)

Downloads [downloads.ubnt.com](http://downloads.ubnt.com)